

# Policy Needs for Statistical Data on Enterprises

**National Statistics Board** 

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#### **Abbreviations**

ASI Annual Services Inquiry
BOP Balance of Payments

CBFSAI Central Bank and Financial Services Authority of Ireland

CCS Corporate Customer System
CII Collective Investment Institutions
CIP Census of Industrial Production
CMMS Cattle Movement Monitoring System
CRO Companies Registration Office

CSO Central Statistics Office

DAF Department of Agriculture and Food

DCMNR Department of Communications, Marine and Natural Resources

DETE Department of Enterprise, Trade and Employment

DoEHLG Department of Environment, Heritage and Local Government

EHECS Earnings, Hours, and Employment Costs Survey

EPA Environmental Protection Agency

ESB Electricity Supply Board

ESRI Economic and Social Research Institute

EU-SILC European Union Statistics on Income and Living Conditions
GERD Gross National Expenditure on Research and Development

GIS Geographic Information Systems

GPS Global Positioning System

IIP International Investment PositionIMDO Irish Maritime Development OfficeMFI Monetary Financial Institutions

NCT National Car Testing

NPPB National Postcode Project Board

NSB National Statistics Board

PAYE Pay As You Earn

PCI Passenger Card Inquiry

PPSN Personal Public Service Number

QNHS Quarterly National Household Survey

SEI Sustainable Energy Ireland SFP Single Farm Payment

## **Preface**

In the NSB's Strategy for Statistics 2003-2008, the Board articulated a medium-term strategy to support the development of Ireland's statistical system. A key pillar of the Board's strategy was for the CSO to work with Government Departments and Agencies to maximise the use of administrative data to generate statistics. A number of reports have already been produced to support this objective. In September 2003, the CSO completed an examination of social data holdings in six Government Departments<sup>1</sup>. This report complemented the earlier NSB examination of social and equality statistical data needs<sup>2</sup>. This present report mirrors those two earlier reports by examining business data needs and data sources in a wide selection of Government Departments and Agencies.

To conduct the Study, the Board formed an Expert Group to examine business data needs and the CSO formed a number of teams to work with the key business data owners across the public sector. This report contains the full report from the Expert Group and a summary of the main findings of the CSO teams. The full CSO report is available on their website.

I would like to thank all of the participants in the Study including the staff in the relevant Government Departments and Agencies who generously gave of their time and expertise. I would also like to thank the Director General of the CSO and his staff for undertaking a very onerous project in addition to continuing their normal duties.

Readers will be struck by the clarity with which the Expert Group has identified important gaps in the existing body of official statistics and by the crosscutting nature of many of these issues. The recommendations relating to the need for a unique business identifier and the establishment of a central business register are central to the implementation of the Board's strategy for statistics. Accordingly, the Board is recommending that these recommendations should be submitted to Government for further consideration.

Professor Brendan Walsh Chairperson

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<sup>&</sup>lt;sup>1</sup> http://www.cso.ie/releasespublications/documents/other\_releases/spar.pdf

<sup>&</sup>lt;sup>2</sup> http://www.nsb.ie/publications/Developing%20IrishSocial&EqualityStatstoMeetPolicyNeeds.pdf

# Chapter 1

# **Board's conclusions**

#### 1.1 Introduction

The emerging emphasis on evidence-based policy-making in recent years has led to an increased importance being given to the use of statistics in policy analysis. The National Statistics Board argued in its *Strategy for Statistics*, 2003-2008 that a fundamentally new approach to the strategic development of the national statistical system was required in order to address national needs for statistical information in a comprehensive manner. The Board expressed the view that Ireland faces several key challenges in the coming decade, so as to:

- ♦ Ensure that Ireland can meet demands for new statistics and indicators in an efficient and effective way;
- Guarantee that all official statistics produced in Ireland are compiled to best international standards and hence are comparable with those of other EU and OECD countries;
- ◆ Harness all potential in existing data sources while ensuring that the burden of data collection on individuals and enterprises is not excessive; and
- ♦ Build datasets (based on individuals and enterprises) that are compatible, capable of longitudinal analysis, and meet data protection standards.

These challenges mean that Ireland requires a Strategy that takes a whole-system approach, involving all areas of the public sector where statistical surveys or administrative records are maintained from which official statistics are or could be generated. As part of the implementation of the Board's strategy, the CSO undertook a detailed examination of social statistics data holdings in six Government Departments during 2003<sup>1</sup>. Following the completion of this work, the Board initiated a similar study of enterprise data needs and data holdings in Government Departments. To conduct this Study, the Board formed an Expert Group to examine policy needs, and asked the CSO to examine data holdings on enterprises in selected Government Departments and Agencies. The work also incorporated an examination of some social data holdings that were not evaluated in the earlier social statistics data holdings study.

#### 1.2 Terms of reference

The terms of reference for the study were as follows:

- To identify the most important policy areas of interest and related needs for which statistics based on enterprises can contribute to the development of policy, including those that could be met through a more efficient use of enhanced data holdings;
- ◆ To identify and assess existing statistical surveys and administrative data relating to enterprises in relation to their coverage, classification systems, timeliness, and relationships to the policy themes;
- ◆ To determine what would be required to enhance the value of existing data holdings on enterprises so as to provide a better basis for informed policy development; and
- ♦ To review the potential for efficiencies and reducing respondent burden by avoiding duplication and overlap in existing systems.

<sup>&</sup>lt;sup>1</sup> Report is available at http://www.cso.ie/releasespublications/documents/other\_releases/spar.pdf

An Expert Group<sup>2</sup> was established under the aegis of the Board to identify the most important policy areas for which data on enterprises could contribute to the development of policy. The Expert Needs Group examined policy needs in the context of:

- Needs already being addressed by the current statistical outputs;
- ◆ National priorities within the set of EU requirements that the CSO does not currently produce but must meet over the next few years; and
- Other needs not currently being met, especially in developing areas such as the environment.

#### 1.3 Board's recommendations

The findings of the Expert group and of the CSO teams are outlined in Chapters 2 and 3 of this report. In this Section, the Board has reviewed these findings and highlighted those recommendations that it considers should be implemented immediately and those that require further consideration.

#### **Expert Group findings**

The Expert group stressed the need to achieve maximum value from existing survey and administrative data holdings. Their principal findings, in terms of required priority developments, are in the areas of Construction, Transport and Travel, Energy, Environment, and Research and Development and Innovation.

The Board wishes to highlight a number of the recommendations of the Expert Group. In particular, it recognises the importance of the construction sector and endorses the specific recommendations in this sector (Recommendations 1 to 4). The development of further information on housing completions and of further house price data sources should be undertaken as soon as possible.

While recognising that it would have significant resource implications, the Board agrees that the establishment of a National Travel Survey should be a priority for the CSO (Recommendation 5). The Expert Group considered that there is a need for such a broadly based survey that would cover all modes of travel for all purposes (work, school or college, business, recreation, etc.). It would present an opportunity to establish a comprehensive and wide-ranging data series across all transport modes that would firmly establish a baseline for transport usage. In this area also, the Board agrees that, for transport planning purposes, regular information is needed that links place of residence to place of work (Recommendation 6). The CSO should immediately develop a strategy to progress the implementation of these two recommendations.

It is clear also that further data is needed in the energy area. The Board endorses the recommendations in this respect aimed at the collection of more detailed information and the compilation of more detailed price indices (Recommendations 7 to 9). The CSO should, as a matter of priority, secure agreement on how more comprehensive energy data can be made available from the main energy utilities. The Board also endorses the recommendations aimed at improving the availability of more detailed statistics on the environment and suggests the Department of the Environment should take the lead in agreeing the basis on which the CSO and the EPA should take these ideas forward (Recommendations 10 and 11). The Board also supports the

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<sup>&</sup>lt;sup>2</sup> Membership of the Expert Group is given in Appendix 1.

recommendation that the CSO should publish a new regional indicators report (Recommendation 12).

There is a specific recommendation on the future conduct of the EU Innovation and R&D surveys that illustrates the importance of later recommendations, coming from the work of the CSO teams, on rationalisation of data collection. The Board sees merit in the involvement of the CSO in data collection in this area and recommends that an efficient solution, which meets the needs of all parties requiring access to the micro level data, should be found (Recommendation 13). Given the long-term importance to the Irish economy of comprehensive statistics on R&D, the CSO should give priority to the implementation of this recommendation.

The Terms of Reference of the Expert Group asked them to examine policy needs bearing in mind national priorities within the set of EU requirements that CSO does not currently produce but must meet over the next few years. The Board agrees with the general views expressed regarding: the need for better structural data on the financial sector; the preference for timely quarterly data over monthly data in the industrial area; and the need to meet some fundamental annual national accounts needs before aiming at more timely quarterly data. In particular, it strongly agrees that CSO should continue to give priority to the further development of economy wide earnings statistics.

#### **CSO** teams findings

The Board also asked the CSO to carry out an evaluation of data holdings on enterprises across the administrative and statistical system. As part of this evaluation, the CSO assessed the potential for adding greater value to this wide range of information by, for example, standardising classifications and, where possible, eliminating duplication or overlap. This should enable the development of a more coherent approach to the analysis of economic datasets. Such statistical improvements should allow evidence-based policies to be developed across a range of economic issues. This stage of the project involved CSO teams carrying out evaluations of data holdings in selected Government Departments<sup>3</sup> and the Central Bank and Financial Services Authority of Ireland (CBFSAI). The CSO teams, as part of their investigations and discussions, obtained details of the main data requirements identified by the Government Departments and by the CBFSAI. Chapter 3 presents the main general issues which the teams identified including a summary of the principles that the CSO teams agreed should underpin the approach to future use of enterprise administrative data. Appendix 3 contains the main recommendations of the CSO teams at Department level. This work has been underway for some time and the ideas generated by these discussions have given rise to immediate action in some cases. As a result, some of the recommendations have already been put into effect.

Arising out of the work of the CSO teams with individual Departments, some general issues have been highlighted. A number of these relate to approaches that would increase the value and use of data currently being collected and reduce the data collection burden on business. The introduction of a unique business identifier would result in a more integrated and efficient data collection system. For example, the CSO, under the Statistics Act, 1993 is permitted to assign economic activity and employment size class groups to data contained in administrative data sources for statistical purposes. Provided both data files have the same business identifier, such data matching can be routinely undertaken. The use of unique identifiers would permit consistent measurement of the actual response burden on business and the distribution of that burden by business size and type. It would also be possible to

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<sup>&</sup>lt;sup>3</sup> Departments of Agriculture and Food; Arts, Sport and Tourism; Communications, Marine and Natural Resources; Community, Rural and Gaeltacht Affairs; Enterprise, Trade and Employment; Environment, Heritage and Local Government; and Transport.

reduce duplicate data collection of some variables by making use of data collected in another government funded survey rather than collecting the same data again. Hence, a unique business identifier would add value to data files and improve the efficiency of data collection (Recommendations 14 and 15). Given the very broad policy and statistical value that a unique business identifier would yield, the Board recommends that the CSO immediately set about the establishment of a cross-Departmental Group to consider the issue.

While any new data collection approaches must have as primary considerations a professional approach to data handling and the protection of confidential data, the Board fully supports the recommendation calling for a reduction in the response burden on business through securing agreement on shared data collection (Recommendations 16 and 17).

The Board welcomes the recent initiatives of the Commission for Communications Regulation and the Department of Communications, Marine and Natural Resources in examining the benefits of introducing postcodes to Ireland, and the decision by the Minister to establish a National Postcode Project Board (NPPB). Postcodes are one of the key pillars<sup>4</sup> of producing the economic, social and environment statistics required by Government, business, and society in an efficient and effective way. They would significantly increase the availability of regional statistics and permit more cross-departmental analyses of important policy and planning issues. A system of postcodes compatible with GIS/GPS technology would greatly facilitate the spatial mapping of administrative and statistical data. Their introduction would also greatly facilitate a broad range of statistical tasks such as register maintenance, sample selection, grossing, and travel origin/destination coding (Recommendation 18). The Board has outlined its position in more detail in Appendix 2 of this report.

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<sup>&</sup>lt;sup>4</sup> Other key pillars include a Personal Public Service Number, a unique business number, a central business register, and a national address register.

# Chapter 2

# Expert Group report on priority policy data needs

#### 2.1 Priority Developments

The Expert Group identified five areas as needing priority development, namely:

- a) Construction;
- b) Transport and Travel;
- c) Energy;
- d) Environment; and
- e) Research & Development and Innovation.

#### a) Construction

The group recognised that the past ten years has seen major growth in the construction sector, especially in housing. As a result, the sector now employs around twelve per cent of the total at work. In view of its importance, it was agreed that more comprehensive and better quality data on the sector was a priority. The group recognised that this is a sector for which data collection has always been difficult and welcomed the recent initiation by the CSO of a quarterly inquiry into the output of the sector. Given the importance of the housing sector, the CSO proposes to include the housing characteristics questions in the 2006 Census, a departure from the former practice of including these every ten years only. In addition, the CSO will analyse in detail the count of vacant households as determined by census enumerators, along the lines of similar exercises carried out for the 1991, 1996 and 2002 censuses.

However, the available data for analysis of this sector needs improvement in a number of respects. Particular emphasis was placed on the housing stock and on details of house completions. The census analysis of vacant dwellings goes some way to meet the need for details of the housing stock but a more closely targetted approach than is possible in the Census may be needed. With regard to completions, information is currently derived from ESB connections. This approach needs further development to improve the accuracy of the data which can be affected by matters such as the existence of multiple connections in the case of farms. Information from the planning system also has potential for monitoring building commencements and completions.

Further information is also needed as regards housing conditions and on the number of second homes. Data on two monthly electricity bills is one possible data source to identify homes with very seasonal usage. The ESRI currently conducts a survey on housing conditions, and it is suggested that this survey should be expanded to incorporate other aspects of interest such as energy efficiency. Equally, there is a need to get greater clarity on the number of dwellings that become obsolescent or derelict.

The group welcomed the fact that work is currently underway in the Department of the Environment, Heritage and Local Government on the development of improved house price indices. It was considered that such data should be available at a detailed geographic level, and that the possibility of covering all house transactions (not only those covered by a mortgage) should also be investigated.

**Recommendation 1:** Current information on housing completions, which are derived from ESB connections, should be supplemented by:

(a) Use of the application form for electricity connections to indicate if the property is a first or second/holiday home; and

(b) Monitoring of terminations to identify obsolete dwellings; the potential of information on planning permission applications that involve the demolition of existing housing should also be investigated for this purpose.

The ESB connections data should be refined to cater for the existence of multiple connections covering the same household or business.

**Recommendation 2:** The group welcomed the use being made of planning information on commencements and completions and recommend that this analysis should be continued.

**Recommendation 3:** Consideration should be given to asking an appropriate question on ownership of second homes at regular intervals in the QNHS or the EU-SILC although this will not capture information on houses owned by persons living outside the State.

**Recommendation 4:** Potential sources for more detailed house price indices should be examined by the Department of the Environment.

#### b) Transport and Travel

Transport has a crucial position in relation to the performance of the economy and also has a major social and environmental impact. The group considers that, while the CSO collects a wide range of information on travel to work and school and also on road freight transport, there is a need for a more broadly based survey that would cover all modes of travel for all purposes (work, school or college, business, recreation, etc.).

A National Travel Survey would present an opportunity to establish a comprehensive and wide-ranging data series across all transport modes that would firmly establish a baseline for transport usage. This survey would provide information on why people make particular transport choices for different types of journey. It could also be used to provide information on fuel consumption and on the road fuel efficiency of private cars. Links to the Census of Population, the Department of the Environment's National Driver File, and the National Car Test Car File should be explored in the planning of the survey so as to ensure it is designed as efficiently as possible.

In the context of transport planning, regular information is also required on the location of individuals' workplaces. The Census does give information on travel to work at a detailed level but major changes can take place quite quickly. Possible sources for such data are the CSO's Quarterly National Household Survey or information from the Revenue Commissioners. However, it is currently a very cumbersome and expensive process to determine detailed place of work coding from a postal address and the introduction of postcodes should greatly facilitate this work. The QNHS sample would not allow comprehensive small-area analysis of points of origin as the level of geographical detail required by many users would not be available from the QNHS sample.

**Recommendation 5:** The establishment of a regular National Travel Survey should be a priority for the CSO.

**Recommendation 6:** The possibilities for collecting and publishing regular information linking place of residence and place of work should be investigated by the CSO.

#### c) Energy

Information in the energy area needs improvement in a number of respects. Among the priorities identified were further development of the annual energy balance sheets to provide a more detailed fuel, sectoral, and sub-sectoral breakdown. This information should be developed using data from the energy utilities (licensed suppliers including oil). It is in the collective interest of the individual operators in the sector that coherent data are available. This will need to be augmented with data from energy consumers. The proposed National Travel Survey could provide such data and also provide comprehensive coverage of the services sector.

The provision of consistent price information by sector of use and by type of fuel also needs to be developed. Price data are essential for forecasting demand and estimating the responsiveness of demand to changes in relative prices. Some of these data have been collected in the past but not in a sufficiently coherent manner. Research in this area needs long run consistent data.

**Recommendation 7:** CSO and Sustainable Energy Ireland (SEI) should have discussions with the energy regulator to ensure that data continues to be provided by utilities (generators/suppliers) with an emphasis on its further development, especially in the context of energy balance sheets.

**Recommendation 8:** Consideration should be given by the CSO to annual surveying of industry and commercial sectors as these data are the basic information source for annual sub-sectoral analyses of energy usage.

**Recommendation 9:** Energy price series by sector and by type of fuel should be compiled; a special exercise to produce a long run consistent price data series should be undertaken by the CSO.

#### d) **Environment**

A number of issues were identified in relation to the further development of a broad range of environmental statistics. Among the issues of most concern are environmental performance and expenditure over time and with a spatial dimension, and information on waste-water plants. The Environmental Protection Agency (EPA) currently holds a large volume of data on IPC licensed plants throughout the State. These data need to be collated into a time series format and to be spatially referenced using GIS. Such a development is an EPA goal. A further desirable advance would be the production of a set of sustainable development indicators, and indicators on related matters such as measures of life satisfaction. The CSO and EPA should work together to progress these issues.

**Recommendation 10:** Information on environmental performance and environmental expenditure should be compiled in a time series format and spatially referenced.

**Recommendation 11:** Detailed data on the operation of wastewater and solid waste plants should be compiled.

**Recommendation 12:** The CSO should publish an annual regional indicators report using variations in quality of life as a central theme to guide the selection of indicators.

#### e) Research & Development and Innovation

The EU are increasingly active in the collection of research and development and innovation statistics. In R&D, the main indicators relate to gross national expenditure

on R&D (GERD) and the number of researchers involved in R&D. Three EU Community Innovation Surveys have been completed and a fourth was conducted in 2005. This fourth survey covers product and process innovation during the period 2002-2004. Organisation and marketing innovation was also included. Forfás have conducted these surveys in Ireland generally by employing market research companies to undertake the data collection.

There are ongoing discussions to improve the statistical reliability and policy relevance of these statistics. Discussions are also taking place at international level concerning the treatment of R&D in the National Accounts. There are emerging needs for indicators to more comprehensively identify the relationship between expenditure on R&D and output, and to examine the statistical implications of the internationalisation of R&D. The group considers that, in these circumstances, the Innovation and R&D surveys should be conducted by the CSO. This would allow for synergies to be developed with existing CSO enterprise surveys. Detailed discussions should take place between both organisations to ensure that the new situation fully meets both of their data needs.

**Recommendation 13:** The EU Innovation and R&D surveys should be jointly conducted by the CSO and Forfás.

#### 2.2 EU Regulations and CSO developments

The group was asked to look at national priority data needs in the context of the set of EU requirements that the CSO does not currently produce but must meet over the next few years. It recognised that the CSO, while operating within its own priority and resource constraints, has little if any discretion with regard to meeting these EU requirements. However, the group felt that some general observations could help to inform future EU consultations, especially as the question of re-appraising priorities is being more actively considered at EU level.

The need for new or more comprehensive statistics was examined in the context of: current data collection; developments that are already underway in the CSO; and the demands of EU legislation. Individual members of the group provided submissions on the issues that they considered were of primary national importance. It was recognised that key national business and environmental policy issues such as competitiveness and infrastructure were inherently cross-cutting in terms of the fundamental data requirements, and that a cross-cutting collaborative approach should therefore apply to data collection.

In line with the requirements of the Lisbon Agenda, the group stressed the importance of limiting the regulatory burden. However, from the point of view of competitiveness (another major arm of the Lisbon Agenda) issues such as the cost of energy and waste disposal have a major impact. Consequently, better data on these aspects are essential.

In the national accounts area, it was agreed that the development of a production approach to the measurement of GDP would increase the accuracy of the accounts and would, therefore, be of considerable value nationally. Developments of the government accounts were also seen as offering benefits to users. The group stressed that the demand for more timely quarterly accounts should not reduce the scope for meeting more fundamental needs.

As regards services statistics, emphasis was put on the need for top quality data on the financial sector in view of its importance in the country. While the comprehensive coverage for Balance of Payments was acknowledged, it was also recognised that much of the structural data desirable for the banking, insurance, financial intermediation and pension funds sectors need to be further developed. Other developments in relation to the structural business inquiries that would be useful include the floor area covered for distribution stores as well as usage of energy and water. As regards international trade in services, the group welcomed the potential for further expansion of the available data from the Balance of Payments to give more geographic information, in particular.

In the industrial area, there was strong agreement on the need to make statistics on the construction sector a priority but there was concern at the concentration on a monthly frequency for many business indicators. It was felt that timely quarterly data would be adequate.

In terms of developments already being undertaken by the CSO, the group agreed that priority should be given to the further development of comprehensive earnings statistics. In this context, it welcomed the use of the PPSN in the National Employment Survey as this provided a basis for linking with PAYE data to provide further information.

The additional range of information on tourism produced in recent years was also welcomed and the group felt that this largely provided an adequate basis for evaluation of policy in this sector.

# **Chapter 3**

CSO principal findings at

Department level

#### 3.1 Cross-cutting issues

The main work of the CSO teams consisted of assessing the quality of the data holdings and providing an assessment of their existing and future statistical potential. In particular, the teams were concerned with exploring the possibilities for greater efficiencies in the overall statistical system. Appendix 3 contains a summary of the recommendations arising from the work of the CSO teams in the individual Departments. Action is already underway on the implementation of a number of these. Many of them should be of benefit in informing the development of Data Strategies by the relevant Departments. The principal findings of a cross-cutting nature are given in this Section<sup>1</sup>. They have been summarised under the following headings:

- a) Data collection principles;
- b) Unique business identifier;
- c) Access to business register;
- d) Optimising the use of administrative data holdings;
- e) Rationalisation of data collection;
- f) Geography; and
- g) Dissemination.

#### a) Data collection principles

In the course of the analysis of data sources and needs, there were certain recurring issues which can only be solved by the adoption of a fundamental and strategic approach across Departments and Agencies. Five principles are set out here that would increase the value and use being made of statistical data on enterprises currently being collected, and significantly reduce the data collection burden on business.

**Principle 1:** Where the same or similar data is needed by more than one body, that data should be collected only once. Where it facilitates respondents and users, data collections should be merged and carried out by one collecting body only.

**Principle 2:** Response burden on business should be kept to a reasonable minimum across the public sector organisations.

**Principle 3:** Prioritisation of data collections across the public sector should be carried out in an ongoing, transparent manner.

**Principle 4:** Government Bodies with a genuine need for identifiable microdata should be in a legal position to access those data, regardless of which Department or Agency is the collection body.

**Principle 5:** Business representative groups should be directly involved in the design and implementation of a public-service wide data collection programme.

The application of these principles in the context of data collection, and possible data sharing, needs detailed examination. These issues are explored in greater detail in the rest of this Chapter (see Rationalisation of data collection in particular).

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<sup>&</sup>lt;sup>1</sup> The full report will be available on www.cso.ie.

#### b) Unique business identifier

Effective policy-making and monitoring increasingly requires cross-cutting analyses of related data files which are held by different bodies. The group sought information on the current plans for the use of business identifiers in the context of the public service broker that will facilitate business interaction with Government. From the statistical point of view, the public service broker is a very important and far-reaching project. Potentially it is the main vehicle for linking data files on business across data sources and longitudinally. However, in order to achieve this objective, it is vitally important that critical statistical concerns are fully taken on board at the planning and design stages.

Data on businesses are held by many Government Departments and Agencies. Different business identifiers are used across those organisations - sometimes different identifiers for the same company are used even within an organisation. The result is a system in which data cannot easily be linked at either a macro or micro level. This has negative implications both for the utility of the existing data and for the suppliers of the data (i.e. businesses) who often find that they are requested to supply similar information to more than one public sector organisation. From a statistical point of view, there are major advantages in having a unique reference number for each business.

The Companies Registration Office maintains a publicly available register with unique reference numbers but the scope and coverage is limited. In particular, it covers only incorporated entities. Individual local units (separate geographic units) do not form part of the system, and there is no mechanism for linking every member of an enterprise group.

The use of standard classifications and coding systems in data holdings is paramount in achieving linkages at the macro level, in order to facilitate cross-sectional analyses both by those in the public sector and by outside users. A number of core classifications are used for business data - these include sector of activity, ownership details, size (employment and turnover), and geographic classifications. Many data sources throughout the system contain classifications for these variables. Sometimes the same classification is used but is applied differently. It is only natural that, in the past, the level of effort put into the coding of these classifications by an organisation depended only on the particular need within that organisation. Coding to some classifications (e.g. the NACE classification for economic sectors), as well as being very labour intensive, can be complex and is subject to a hierarchy of complicated decision rules. Where NACE coding has been done by different organisations, the final classification of businesses has sometimes differed substantially. Under the current statistical legislation (Statistics Act, 1993) the CSO may, for statistical purposes only, assign economic activity and employment size class groups to data contained in administrative sources. This work cannot be effectively carried out without the use of unique business identifiers. In the past, efforts have been made to reconcile NACE coding between the CSO and other organisations. Lack of a unique identifier has seriously hampered this work, as sometimes the matching has been based essentially on the name and address of the business - a very inefficient way of data matching.

The existence of a widely-used unique business identifier would also lead to efficiencies in the conduct of statistical surveys. Time-consuming and expensive surveys may be carried out to compile information for which microdata already exist within the Government system. However, these microdata cannot be pieced together because a common identifier does not exist. This leads to justified criticism from businesses who perceive that the system is inefficient and that the cost of this inefficiency is being largely borne by business. As well as being inefficient, this

approach has an effect on response rates to statistical surveys, which in turn leads to more time and money being expended to produce results of the required quality.

A common business identifier would also help to alleviate the response burden on business. Measuring the response burden and how it falls on various types of business across the public sector would be the first real step in managing the burden on a system-wide basis. Measuring the burden in a way that is comparable across public sector organisations would, of necessity, involve the use of a common identifier. As well as being more measurable, it would be possible to demonstrate how the burden is being managed and spread as evenly as possible.

The implementation of a unique number for business would, however, be quite complex. This arises because in different circumstances, data may be recorded for an enterprise group, for its constituent enterprises, or for geographically dispersed local activity units or branches. The business identification system would need to take account of this complexity. The process for registering a new business would also have to be considered in tandem with any proposals to introduce a unique business identifier.

**Recommendation 14:** In order to reduce the burden on respondents and to add significant value to data collection, a cross-Departmental group should be established to investigate the introduction of a unique business identifier and registration system.

#### c) Access to Business Register

A centrally maintained accessible business register that covers the entire economy would provide significant benefits for the administrative and statistical systems. For statistical use, it would be vital that such a register be kept continuously up-to-date in respect of both new businesses and closures. The establishment of such a register is closely tied in to the question of a unique business identifier.

The CSO maintains a register of business units as a basis for conducting statistical inquiries. This includes details of the unit involved, industry classification (NACE code) and employment. This could be of considerable benefit to other Departments and Agencies. However, for legal reasons, the CSO is not permitted to supply copies of the register to other Bodies although - under the Statistics Act, 1993 - the CSO may attach activity and employment codes, for statistical purposes only, to existing registers held by State bodies.

The possibility of allowing access by official Bodies to the CSO's business register should be examined but risks to CSO response rates must again be a strong factor in such considerations. Access to CSO's register would need to be limited to a sub-set of variables. For example, it would not be appropriate to include turnover details.

**Recommendation 15:** The cross-Departmental group dealing with the unique business identifier should also consider the best solution for the ongoing maintenance of a central business register.

#### d) Optimising the use of administrative data holdings

Both the CSO teams and the Expert Group stressed the benefits to be gained, especially in terms of reduced compliance costs, from utilising existing survey and administrative data holdings in Government Departments and Agencies. Access to such data, for statistical purposes, is permitted under national and EU statistical law. To achieve maximum benefit from such data sources, it is important at the planning and design stages that standardised concepts and classifications should be used. It

would also be necessary to be able to link data files and, in particular, to be able to link administrative data with data collected by the CSO. These measures should help ensure that data are used to the fullest extent to aid decision making.

#### e) Rationalisation of data collection

The CSO teams reports highlight a number of instances where it could be possible, by expanding or changing the scope of a particular data source, to also meet the needs of another body and so reduce the burden on respondents. Examples for the possible elimination of overlaps include collection from financial enterprises (CBFSAI) and other enterprises (DETE). The greater use of administrative sources is illustrated by proposals for additional statistical uses of items such as Motor Tax and Local Authority data sets (DoEHLG).

A number of different situations may arise in this context, some of which would need detailed examination of the resulting benefits, and of other consequences. The most obvious case for change, and also the simplest, is when at least one of the organisations involved requires aggregate data only. The matter to be decided then is which body should take on the data collection and compilation role after agreement has been reached on the scope of the data collection.

In a situation where another Department or Agency requires individual data for administrative or statistical purposes, the current arrangement is that such data are collected by the relevant Body. Where it needs such data, the CSO obtains a copy from the collecting body under the terms of the Statistics Act, 1993. The transfer of confidential data collected by the CSO is strictly forbidden under the terms of that Act. This is in line with international principles applying to official statistics. This implies CSO is precluded from being the collecting body even when this might be the most efficient approach.

Where data are required for both administrative and statistical purposes, it is likely that it could be most efficiently collected and processed by the responsible administrative Agency. In that case, the necessary importance must be given to collecting with the needs of both organisations adequately catered for.

If it is considered more efficient or necessary for CSO to collect the data, one possibility that should be investigated, and which would help to minimise response burden, is to arrange joint data collection by asking respondents to CSO inquiries to certify that they will allow their return to be shared with another named body. In so doing, due regard must be paid to the potential for affecting response to CSO inquiries if a perception arises that there is free exchange of data with other Government Agencies. Legal impediments to such arrangements would need to be investigated.

**Recommendation 16:** For efficiency and respondent burden reasons, the CSO should examine the issue of shared data collection and get appropriate advice on any legal impediments. A particular issue to be investigated is whether there would be any adverse effect on data quality or response rates.

**Recommendation 17:** The appropriate business groups should be consulted on the issue of sharing enterprise data.

#### f) Geography

There are considerable statistical advantages to the establishment of a national small area geography that would facilitate the coding of addresses at a very detailed level. Examples of such advantages are: analyses of the concentration of incidences of

particular diseases, deprivation areas indicators, place of work coding, and travel to work corridors. The location of different types of businesses and of services, and of new buildings could also be spatially mapped.

Two potential developments in this area are the Irish Spatial Data Infrastructure (ISDI) small areas initiative and the recent decision to introduce a system of postcodes. The small areas project involves the development of a new national small area geography that would be compatible with postcodes geography. The introduction of postcodes is potentially of huge value to policy development, implementation and monitoring on a wide range of administrative issues. Postcodes will also have enormous statistical value. However, the postcodes will have to be sufficiently detailed (each unique postcode should represent only a small number of households and businesses) for their full policy and statistical benefit to be realised. Ideally postcodes will also cover non-address points so that environmental issues are fully comprehended. Examples of such issues are the location of pollution points, accident locations, heritage monuments, and power pylons. The postcode should incorporate a geo-coordinate component to ensure that these needs can be met efficiently. A correspondence table - matching individual postcodes to area geography such as townlands, Electoral Divisions and counties - would permit data holders to flexibly and consistently aggregate their micro data.

**Recommendation 18:** The postcode system should be sufficiently detailed, flexible, and spatially structured, to meet the needs of Government, business and society for economic, social and environment regional and spatial data.

#### g) Dissemination

The CSO should continue its policy of making all of its publications and releases freely available on its website. Two general principles that all data collection bodies should adhere to are: increased usage of standard classification and coding systems so as to facilitate comparisons between the results of different data sources; and publication of the statistical results from surveys or administrative data sources that have been funded by Government. When such surveys are repeated, they should generally keep to a standard set of tables so that time-series can be compiled.

The CSO should continue its policy of making business microdata files available for economic research by designating appropriate researchers as Officers of Statistics.

# **Appendices**

## Appendix 1 Membership of the Expert Group

Mr. Brendan Walsh<sup>1</sup>, Professor of Economics, U.C.D. (Chairperson)

Mr. Peter Clinch, Professor of Regional and Urban Planning, U.C.D.

Mr. Frank Cunneen<sup>1</sup>, NSB Member

Ms. Mary Doyle<sup>1</sup>, Assistant Secretary, Department of the Taoiseach

Mr. John Fitzgerald, Economic and Social Research Institute

Mr. Bill Keating, Director, CSO

Mr. Colm McCarthy, Economist

Mr. Derek Moran<sup>1</sup>, Assistant Secretary, Department of Finance

Mr. Martin Shanagher, Assistant Secretary, Department of Enterprise, Trade and Employment

Secretary: Mr. Gerry Brady (CSO/NSB Secretary) and Mr. Steve MacFeely (CSO)

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<sup>&</sup>lt;sup>1</sup> NSB Member.

# Appendix 2 National Statistics Board's Position Paper on Postcodes

The National Statistics Board welcomes the decision of the Minister for Communications, Marine and Natural Resources to introduce postcodes and the subsequent establishment of a National Postcode Project Management Board. The NSB has set out here some broad principles in relation to the value of postcodes for compiling and analysing statistical and other data. The Board supports a GIS point-based approach to allocating postcodes. This approach would allow maximum flexibility for policy analysis, avoid the need for revisions to postcodes arising from urban expansion, and avoid duplication with existing area-based geography. As the grid co-ordinate data required for such an approach is already held at address level in the GeoDirectory database, it would also facilitate an early and low cost introduction of postcodes.

#### 1. Postcodes have social, economic and environmental value

The primary purpose of postcodes is to assist in the efficient and accurate delivery of post. However, a system of postcodes also has tremendous potential for providing valuable and necessary data to policy-makers and citizens. For example, postcodes could be used to identify and spatially map the location of schools, housing, business premises, and for epidemiological research. They would assist the formulation and analysis of cross-departmental service provision by the public sector. They would facilitate the compilation of the small area data required by Government, and society generally, for developing and analysing economic, social and environment information. While postcodes are typically associated with address points, it should be equally possible to allocate a postcode to non-address points so as to realise their environmental and heritage value.

### 2. Statistical value of postcodes

Postcodes are one of the key pillars<sup>2</sup> of producing the economic, social and environment statistics required by Government, business, and society in an efficient and effective way. They would significantly increase the availability of regional statistics, and the electronic mapping of such data. Both of these developments would be of particular value to planners and policy-makers. The facility to consistently spatially tag administrative and statistical data in a consistent manner, and to subsequently map it, would greatly enhance users understanding of the geographical trends in various data. Their introduction would greatly facilitate a broad range of statistical tasks such as register maintenance, sample selection, grossing, and travel/commuting origin/destination coding. Postcodes would allow more detailed analyses of the geographical distribution of income, poverty, education, ill health, urban expansion, recipients of State payments, internal migration and immigration, and minority groups.

Postcodes could be used to readily identify the geographic location of new businesses, and to identify areas of social deprivation. Individual Government Departments could produce tabular analyses, using consistent small area geography, of the health, educational, environmental, and social and demographic profile of a community. Postcodes could be used to spatially map data relating to topical issues in Irish society such as the location of new housing, and travel between places of residence and places of work and education. Such information would provide vital information on an ongoing basis to support long-term infra-structural planning.

<sup>2</sup> Other key pillars include a Personal Public Service Number, a unique business number, a central business register, and a national address register.

#### 3. Compatibility with GIS/GPS technology and existing geography

Significant value is added to data when it can be spatially mapped. A point-based postcode system that uses grid reference/GPS technology would provide a relatively clear-cut approach to allocating a postcode to an address. As all of the required data for such an approach are already held in the GeoDirectory, a geo-coordinates approach would permit an early introduction of postcodes at a relatively low cost. It would also avoid the very difficult task of trying to group households together into small area clusters that are meaningful both to policy-makers and for postal delivery.

#### 4. Usage and capture of postcodes

Some compromise may be needed between a short more easily memorised code and a code containing additional data and functionality. There are many instances of important public sector reference numbers that users do not necessarily remember (e.g. PPS Number, VAT number) but that they can produce when required. What is essential is that a household or business must be able to easily locate their postcode. This objective can be achieved if the postcode is used on all regular post such as:

- ♦ Electricity, gas, and telephone bills;
- ♦ Correspondence from Public Bodies such as Government Departments; and
- Bank statements.

There are two main approaches to capturing postcodes in the key national address databases. From a data protection perspective, the best approach may be to have householders provide the postcode directly to data owners such as the energy utilities and Government rather than for databases to be matched with a data file containing text addresses and a related postcode. The latter approach would be a costly, timeconsuming, and complex exercise with a risk of wrongly allocating a postcode to an address point. For example, the postcode could be attached to every address point in the GeoDirectory. An Post could then deliver a letter to each address point notifying recipients of their postcode. This letter could comprise a note informing persons of the purpose and benefits of introducing postcodes, and of the national implementation plan being adopted to ensure that key national address registers are updated to include a postcode. Other key address register owners, such as the energy utilities, could quickly follow this by writing to their clients, asking them to complete a form notifying the utility of the postcode for that address. This letter could also inform the addressees of the uses to which this postcode may be put. This would also provide each Agency with an opportunity to itemise the particular benefits of postcodes to their operations and to meet any Data Protection concerns about the uses of such data.

#### 5. Postcodes in rural areas

In rural areas, the postcode should be sufficiently detailed to assist distinguishing between different houses/buildings with the same postal address, e.g. John Murphy, Newtown. It should be consistent with local geography such as Electoral Divisions. The method of assigning postcodes should be such that urban expansion does not necessitate future revisions to the postcodes of households. Given the rate of ongoing urban expansion, this requirement suggests that a consistent methodology should be applied to the allocation of postcodes in rural and urban areas, and that this method should not be based on postal workloads.

#### 6. Dissemination

A considerable volume of statistics has already been published using existing area geography. It is essential that the areas defined by postcodes can be distinctly aggregated into existing geography such as Electoral Divisions and Counties. However the introduction of postcodes will not mean that a large amount of statistical data will be published at the postcode level of geography. Even a large statistical survey such as the CSO Quarterly National Household Survey (sample of 35,000 households every quarter) does not publish much data below regional level. In data files where sampling is not involved, such as administrative records databases, it may be possible to publish some broad information at an aggregated postcode level such as Electoral Division. Effectively if the relationship between postcodes and less precise levels of geography has been defined, in a publicly available data file, then data owners could automatically code the more aggregate geography from the postcode. It should be possible to more readily map statistical and administrative data so as to make the trends in the data more accessible to users and policy-makers. A key element of the Irish Spatial Data Infrastructure<sup>3</sup> initiative is concerned with structuring data so that they can be consistently spatially mapped. Users should be able to overlay a base map with thematic data on issues such as health, demography, transport, education and planning data. The development in Ireland of a system of postcodes at a detailed geographical level will be a major step towards realising this objective and enabling Government, business and society to plan strategically using a whole-system approach.

<sup>&</sup>lt;sup>3</sup> See http://www.irishspatialstrategy.ie/isdi/

## Appendix 3 Main recommendations of the CSO teams

#### A. Central Bank and Financial Services Authority of Ireland

**Recommendation A1:** The CBFSAI and the CSO should jointly examine the possibilities of using relevant data available to the CBFSAI from the monetary financial institutions (MFIs) with a view to compiling, to the extent possible, quarterly BOP and IIP statistics and enhancing work already undertaken for Financial Accounts flows and stocks thereby reducing or eliminating collection and compiler duplication. This examination should cover the options for processing the data and compiling the results required for both institutions' purposes.

**Recommendation A2:** If the required information cannot be obtained from the CBFSAI's statistical returns, the CBFSAI and the CSO should jointly examine the possibility of complementary data collections from MFIs to meet the statistical demands referred to while avoiding data overlaps in so far as possible. The options to be considered and evaluated should cover the range of possibilities from unilateral collection, processing and compilation to varying degrees of work sharing for each of the major tasks involved.

**Recommendation A3:** The CBFSAI and the CSO should jointly examine the longer-term role of the Monthly Interest Income and Expense Return and whether, it would be feasible to enhance the survey to maximise its usefulness for Structural Business Statistics, National Accounts and BOP compilation. However, in the interests of avoiding duplication, this should only be done, when the potential for acquiring similar data from existing data sources is fully explored. Until then, processing and compilation of the Monthly Interest Income and Expense Return should continue on the current basis.

**Recommendation A4:** The CBFSAI and the CSO jointly examine the possibility of an expanded use of the CBFSAI's banking data to meet increasing European statistical demands under Eurostat's Structural Business Statistics for CIs.

**Recommendation A5:** The CBFSAI's Monthly Credit Card Statistics should be examined by the CSO in consultation with the CBFSAI to determine to what extent, if any, the current data could be used as an input into the CSO's retail sales, service statistics, tourism statistics or CPI compilation.

**Recommendation A6:** The CSO and the CBFSAI should jointly examine the possibility of combining or otherwise rationalising their arrangements for collecting and compiling statistics on CIIs (i.e. mutual funds and similar entities).

**Recommendation A7:** The CSO and the CBFSAI should jointly examine what statistical enhancements could result following the changes intended by CBFSAI in its data collection from the insurance industry. This examination should take account of current and future data compilation for BOP/IIP, Financial Accounts, Structural Business Statistics purposes in the context of avoiding duplication in data collection from this sector.

Recommendation A8: While significant progress has been made in recent years in developing co-operation between the CSO and the CBFSAI, it is clear that substantial efficiency gains could be achieved by further enhancing this co-operation. In this context, the SPAR BES Team recommends that the existing CSO-CBFSAI Statistical Liaison Group should be established on a firmer footing and that its mandate should be formalised. The mandate should be expanded to take account of all relevant financial statistical developments and requirements in both institutions and should ensure that these are addressed in a coherent manner. In addition, the CSO-CBFSAI

Statistical Liaison Group should have an agreed schedule of meetings and appropriate reporting arrangements. This more structured approach should deliver positive outcomes not only for data providers but also for the two institutions themselves as data compilers.

#### B. Department of Agriculture and Food

**Recommendation B1:** It is recommended that the work of identifying the reasons for differences between CMMS and CSO cattle numbers data continue and that when a satisfactory solution has been achieved that the CMMS become the main data source on cattle numbers, with additional detail provided by the CSO surveys.

**Recommendation B2:** There is a longer-term goal for DAF to have a more general database covering cattle, sheep and pigs. This would integrate the existing animal identification and movement systems, including CMMS. It is recommended that close liaison be maintained with the CSO at the development stage to maximise the statistical potential of such a database, particularly for sheep numbers.

**Recommendation B3:** A goal to aim for is that eventually the CCS should be the basis of a CSO survey register (with the CSO adding whatever other variables it requires for its purposes). At present the herd number is an identifier that can link to a large extent the CSO survey unit of agricultural holding (through the farmer) and the data contained in CCS, the CMMS and the SFP. It is recommended that the CSO and DAF work towards further improving those links.

#### C. Department of Arts, Sport and Tourism

**Recommendation C1:** The CSO in conjunction with the Department and its Agencies should produce an annual Tourism Satellite Account. As part of the compilation of this account, the CSO should further develop its tourism statistics on: domestic same-day visits within Ireland; cross-border tourism; the calculation of gross fixed capital formation in tourism; and expenditure during the domestic leg of visits by Irish residents abroad.

**Recommendation C2:** The CSO should examine ways to improve the quality of their estimates of the numbers and expenditure of visitors to Ireland from and via Northern Ireland.

**Recommendation C3:** The CSO Passenger Card Inquiry should be developed to collect greater detail on the expenditure of, and socio-demographic profile of, visitors to Ireland. The PCI should also collect information on the regions visited by tourists.

**Recommendation C4:** The CSO Country of Residence survey should be used to collect more detailed nationality data on visitors to Ireland. The coverage of the survey should also be extended to include the new regional airports.

**Recommendation C5:** The Department and its Agencies should develop a comprehensive register of tourism businesses and make this available to the CSO.

**Recommendation C6:** A Working Group on cultural statistics should be established by the CSO. The Group should advise the CSO on a framework for cultural statistics and on priorities to increase the availability of statistical information on cultural activities.

**Recommendation C7:** The CSO should work together with the Department and with the Irish Sports Council in the compilation of a new annual sports statistics release based on administrative sports data held by the Department and its Agencies.

**Recommendation C8:** The CSO should proceed with its intention to include a Sports and Social capital module in the Q3 2006 QNHS. A working group should be established to assist the CSO in the compilation of the questionnaire. Arising from this work, the CSO should examine the possibility of including a question on participation in sport and exercise on an ongoing basis in one wave of the QNHS.

#### D. Department of Communications, Marine and Natural Resources

Recommendation D1: Establish a unique common identifier for businesses.

**Recommendation D2:** Use standard classifications whenever possible in order to enhance the comparability of data at macro (aggregate) level.

**Recommendation D3:** A central business register, that covers the entire economy and which is accessible across the public sector, should be developed. This register should contain key information for businesses and be kept up-to-date through a single registration system. Such a register would facilitate the development of a single identifier for businesses and the use of standard classifications across sources.

**Recommendation D4:** Establish a National Transport/Travel Survey to address serious data gaps in transport statistics.

**Recommendation D5:** Establish a Transport Statistics Liaison Group.

Recommendation D6: Establish an ICT Statistics Liaison Group.

**Recommendation D7:** The CSO should consider providing access to its micro-data through the Officer of Statistics mechanism to the Exploration and Mining Division of DCMNR (for CIP data) and the IMDO (for Port Traffic Statistics). The appropriateness of providing access and compliance with the terms of the Statistics Act 1993 would need to be assessed.

**Recommendation D8:** CSO should be more proactive in providing statistical advice to other Government Bodies.

**Recommendation D9:** When commissioning studies that involve the collection and analysis of statistical data, the commissioning body should ensure that it owns the resulting raw data and the associated intellectual property rights. As the commissioning body funds the collection and analysis of the data from public funds, such data should be owned and stored within the public sector domain. This would facilitate further analyses and use of the data, thus potentially enhancing its value and the value of other data holdings.

**Recommendation D10:** Difficulties in obtaining data was a common issue raised by both the Department and Agencies. Consideration should be given to introducing a statutory requirement for the collection of vital data. However, the Department and Agencies should ensure that they have appropriate mechanisms and procedures in place for the management of sensitive information.

#### E. Department of Community, Rural and Gaeltacht Affairs

Recommendation E1: The Departmental data sets examined are mainly for the purpose of providing management information. None of these data sets are of sufficient importance in their own right that enhancing their statistical potential would be likely to add significantly to the corpus of official statistics. By observing good practice in terms of the design of the variables in the data sets and by adhering to standard statistical classifications where feasible, the data sets involved could be made more useful for policy formulation within the Department. Over time consideration should be given to publishing relevant time series to assist public understanding of the schemes being administered by the Department and its agencies.

#### F. Department of Enterprise, Trade and Employment

In the course of the analysis of data sources and needs, there were certain recurring issues which cannot be adequately solved except by the adoption of a fundamental and strategic approach across Departments and Agencies. These issues cannot be meaningfully addressed by the Department alone, or indeed by any Department or Agency acting independently. Also, some seemingly obvious and sensible specific recommendations regarding the Department's needs and sources are dependent on the implementation of some, or all of these primary recommendations. Therefore, given the primary importance of these recommendations they are presented first and are referred to later when discussing specific data items and needs. These primary recommendations all relate to the data environment, a term which we use to encompass:

- ◆ Data providers (businesses and individuals);
- Data users (specifically public sector users);
- Data handlers (particularly those organisations involved in the primary collection of data);
- ◆ Data compatability (specifically the degree to which information from various sources is coherent);
- ◆ Data utility (the degree to which the collected data meets needs);
- ◆ Data accessibility (the degree to which microdata is available to those in the public service with a genuine need for it); and
- Efficiency of data collections (specifically in regard to the same or very similar data items collected more than once or by more than one public body).

It is these components of the data environment and their mutual interactions which point to the need for a fundamental shift in strategy.

**Principle 1:** Those with a genuine need for identifiable microdata must be in a position to access those data, regardless of which Department or Agency is the collection body.

Two cases must be considered here. Where the collecting body is a Department or Agency other than the CSO, the terms of the Data Protection Act will apply. However, to fulfil obligations under this Act, it would suffice to state all of the uses to which the data would be put and by which bodies. Where the data is collected by CSO, the situation is more restrictive - no identifiable microdata can be passed to other agencies under the terms of the Statistics Act, except with the express permission of the data provider. There are thus two possibilities for the sharing of information collected by the CSO. The first is a change to the Statistics Act to allow data to be passed on under specific circumstances. The second would involve providing the opportunity for a data provider to indicate on an inquiry form that he/she agrees that the data be passed on to specified bodies. While this would have the effect of increasing efficiency and reducing the burden on respondents (which would be attractive to businesses) its effectiveness would be diminished if there was not close to 100% take up of this option. This is because of different organisations working from different registers with different classifications and standards.

**Principle 2:** Where the same or similar data is needed by more than one body, that data should be collected only once.

This simply stated objective can only be achieved by cooperation across agencies and in particular by resolving the barriers to the sharing of data mentioned under Principle 1.

**Principle 3:** Response burden on business should be measurable across the public sector organisations.

It can be argued that measuring response burden across the public sector is essential in order to demonstrate that the burden is spread fairly and is kept to a reasonable minimum. However, there are a number of impediments to this at present. The first is that most bodies do not keep a detailed register of data collections from business. The second is that, even if such registers were available, it would still be impossible to identify the volume and nature of data collected from a specific entity as definitions of entities vary depending on the collection body and the nature of data collected. The obvious solution would be to have a single up-to-date Register of Businesses common available to all public bodies together with a unique reference number attached to each entity on the register. As well as allowing the measurement of response burden, this would also facilitate the sharing of information between bodies along the lines suggested under Principle 1.

While it is simple to propose the establishment of a public sector business register, it is recognised that its actual establishment is no trivial matter. It is also recognised that it will take some time to establish. However, it is difficult to rationalise how data utility can be improved, existing and emerging data needs met and response burden minimised without the concept of a public service business register being progressed. Indeed, such a register with unique identifiers is central to all of the principles mentioned in this section.

**Principle 4:** Prioritisation of data collections across the public sector should be carried out in an ongoing, transparent manner.

The situation at present is that all Departments and Agencies can institute data collections without any regard for other data collections in the wider public sector. However, this approach does not guarantee that the most important policy issues are supported by relevant data. Neither does it guarantee that response burden is kept to a reasonable minimum. It also leads to frustration from respondents who are not in a position to perceive that the collection use necessary and useful from a public administration perspective. This perception can lead to low response rates and/or less than adequate data quality.

**Principle 5:** Where it facilitates respondents and users, data collections should be merged and carried out by one collecting body only.

There are occasions when many different data collections are carried out with respect to related data items or items on the same entities within a business. It would be more efficient to collect this information together rather than have many bodies collecting items that are of direct relevance to that body only. It would also help in promoting a coherence of data items. A specific example, involving an integrated survey of business and employees is given later in this chapter. This example is of direct interest to the Department and some of its Agencies, as well as potentially meeting needs of other organisations.

**Principle 6:** Businesses and business representative groups should be directly involved in the design and implementation of a public-service wide data collection programme.

Perhaps the most expensive and time-consuming element of any data collection involving business is follow-up of non-respondents and follow-up regarding data quality. Given the multiplicity of data collections and the multiplicity of organisations involved in data collection, it is perhaps unsurprising that some businesses will wait until reminded before acceding to requests for information. However, if it were to be commonly understood that the data collection is necessary and deemed to be so by business representatives and furthermore, if it were to be understood that every effort

were being made to keep the burden to a necessary minimum, this could help to alter the current environment with regard to compliance with business surveys.

**Recommendation F1:** The Department, the CSO and other Agencies (including the Revenue Commissioners and CRO) should form a standing committee tasked with progressing, in a time delimited way, the objectives listed under the six principles in the preceding section. The first tasks of the group should be to bring forward proposals as to how best to establish a public sector Business Register that:

- ◆ Is available or partially available to all public sector organisations with a genuine business need;
- ◆ Includes a unique business identifier to be used by those public sector bodies, especially CSO, Revenue, CRO and D/ETE;
- Is comprehensive and includes all business types, regardless of legal form; and
- ♦ Has a built-in and legally enforceable mechanism for the addition of 'new' business units.

The group should form an opinion as to the best physical location for the Business Register and, consequentially, what are the legal issues to be addressed and resolved in order to meet the above criteria. The group should also consider how best to include business interests in its deliberations.

**Recommendation F2:** The CSO and D/ETE (together with FAS and Forfas) should take the lead in identifying the nature and content of amalgamated surveys to replace existing surveys to businesses and employees. These amalgamated surveys should be carried out by the CSO and should allow resulting microdata to be shared among those public bodies with a need for access. To this end, existing legal constraints should be addressed and considered in conjunction with any legal recommendations arising from implementation of Recommendation F1.

Initially, plans to integrate the following activities should be considered:

- (a) Amalgamation of the Annual Business Survey carried out by Forfas and CSO's annual Structural Business Surveys (ASI and CIP). Linking of these sources with the new (quarterly) Earnings, Hours and Employment Costs (EHECS) survey should also be addressed. (It is recognised that the achievement of this goal is dependent on progress in the establishment of a common public sector Business Register with unique identifiers.).
- **(b)** Development of the National Employment Survey (NES) as an umbrella survey to include integrated data collection on:
- Structural workplace issues;
- Earnings, hours of work and employment conditions;
- Training and lifelong learning in the workplace;
- Innovation in the workplace;
- Research and Development;
- Disability related issues:
- Gender related issues of policy importance;
- "Softer" workplace issues such as employee participation in decision making; and
- ♦ Other structural issues identified in the report of the "Forum on the Workplace of the Future".

The issue of access to microdata for public bodies other than CSO also needs to be addressed to progress this objective.

#### G. Department of Environment, Heritage and Local Government

The emphasis of this study has been to highlight the statistical potential of the major data holdings. The Department through their agencies are well advanced in developing the technical infrastructure which will be a solid foundation in realising the statistical potential of their existing data holdings.

**Recommendation G1:** Improvements to the Building and Construction statistics could be progressed more speedily by making more formal the existing ad-hoc dialogue between the Department and the CSO. This should ensure statistical needs are surfaced more timely in the context of the development of computer based initiatives (for example iPLAN).

**Recommendation G2:** The linking of the CSO enterprise data (primarily economic in its perspective) to the EPAs enterprise data (with its environmental view) is becoming more important within the context of a sustainable development framework. Accordingly, mechanisms whereby the necessary integration of the respective datasets, consistent with confidentiality constraints, can be achieved need to be developed more urgently.

**Recommendation G3:** It would be useful to more formally publish investment in water services cross-referenced, where possible, with the water quality in a river basin area. This work is likely to be undertaken as part of initiatives under the Water Framework Directive.

**Recommendation G4:** Consideration should be given to widening the participation in the Energy Statistics Co-ordinating Group, in which the CSO and the SEI participate, to include the EPA and perhaps other Bodies.

**Recommendation G5:** The Bio-diversity related databases should be integrated with all existing/evolving GIS based data, in particular those based on land use.

**Recommendation G6:** The Department should explore extending the scope of the existing management information framework such that Local Authority data can be further classified and made into a more useful statistical archive.

#### H. Department of Transport

**Recommendation H1:** Establish a National Transport or Mobility Survey. The types of information a National Transport or Mobility survey might collect are:

- ◆ Household information (region, number of persons, age, sex, employment status, disability, etc.);
- ◆ Car details where applicable (registration number, cc, etc.) to facilitate linking to NCT or Motor Registration and Tax databases;
- Noute type data (i.e. constituent parts of journey − e.g. linked trips such as dropping off children to school on the way to work);
- Length of journey;
- ♦ Purpose of journey;
- ♦ Mode of transport (including identification of inter-modal journeys);
- ♦ Month, day and time of journey (giving complete picture of overall travel demand);
- ♦ Accidents;
- ◆ Traveller satisfaction; and
- Propensity for modal shift.

**Recommendation H2:** Establish a "Data or Statistics" Section within the Department.

**Recommendation H3:** When a concept underlies a strategic goal, that concept should be clearly defined and measurable (e.g. capacity, utilisation, congestion or disability, etc.).

**Recommendation H4:** Develop a reliable Measure of Congestion.

**Recommendation H5:** Data storage facilities should be improved.

**Recommendation H6:** Links between the CSO and the Department should be improved. Consideration should be given to the establishment of a formal Transport Liaison Group.

**Recommendation H7**: Explore and exploit developing technologies as a potential source of data.

**Recommendation H8:** Incorporate data needs into national law. When transposing EU Law into National Law, consideration should be given to data or statistical needs as part of this process. Where data needs are identified, data provision requirements should be incorporated into national law if possible and suitable.

**Recommendation H9:** Develop comprehensive and meaningful sector data and indicators. De-regulation and privatisation has led to significant data gaps. As sectors move from a position of state monopoly to only partial or non-state involvement, care should be taken to ensure that the entire sector is measured and not just the state-owned portion of activity.

**Recommendation H10:** As far as is legally possible, data held by Agencies and Semi-State companies should be shared with all Government Departments and also with the wider public.

**Recommendation H11:** The CSO should publish separate building and construction indices together with appropriate specialist sub-indices and product indices.

**Recommendation H12:** Fully investigate appropriate data holdings before establishing new surveys or expanding existing ones.

**Recommendation H13:** Local Authorities and City Councils have substantial data holdings relating to transport (technical data on National, Non-National and secondary roads, origin and destination data, land use data, rail corridor data, traffic volumes, speed counts, parking data, taxi licensing, etc). This data should be fully investigated and documented with a view to harmonisation and exploitation.

Recommendation H14: Other related data sources should be consulted. The beginning of this report notes that several agencies were excluded from our scope. Longer term, any comprehensive development of transport statistics should consult with the agencies associated with the Department (the Medical Bureau of Road Safety, the National Safety Council, the Irish Aviation Authority, the Commission for Aviation Regulation, CIE Tours International and the Railway Procurement Agency). It might also prove worthwhile to consult with other outside agencies such as the Quality Bus Network Project Office, the Gardai National Traffic Bureau, the Irish Spatial Data Infrastructure project, the Commission for Taxi Regulation, the National Car Testing Service, and the Motor Insurers Bureau of Ireland.

**Recommendation H15:** Introduction of Small Area Spatial Codes. The development of small area spatial codes would greatly simplify and improve the accuracy of origin – destination data and eliminate the requirement for expensive and time consuming address coding.

**Recommendation H16**: The Department of Transport in consultation with the Department of Environment should consider imposing a requirement where annual updating of motor tax requires collection of vehicle odometer reading. This would provide population vehicle-KM data that could be classified by vehicle type and age, fuel type, county, etc.

**Recommendation H17:** A requirement could be added, that the microchip in every taximeter be submitted as part of the process of granting and renewing licences. This would yield valuable data (e.g. daily data on number of journeys, start and end time of journey and journey km) and could be matched against vehicle type, etc. This data could possibly be supplemented by a survey of taxi companies who use GPS tracker systems, to provide actual origin-destination and route data.

**Recommendation H18:** Data should be shared more between Agencies and Departments.